

Work Order ID 152473

152473

Page 1

Monday, November 28, 2016 7:23:57 AM

Item ID: DSI 9464-011

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Skidtube Tuning

Start Date: 10/18/2016 Start Qty: 2.00

2

Cust Item ID:

Required Date: 10/24/2016 Req'd Qty: 2.00

2

Customer:

Reference:

DAS

21

9-89

Approvals: Process Plan: Date: **NOV 28 2016**

Tooling:

Date:

Run Start ***NR1***

QC: Date: SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3955	A								
DSI 9464	B								
100	Document Control	0.00							
100									
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile &type labels per PPP DSI 9464-011 CHG001								
110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									

DAS
21
9-89

NOV 28 2016

DAS
21
9-89

NOV 28 2016

DAS
28
9-89

DEC 13 2016

DAS
6
9-89

DAS
27
9-89

DEC 09 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Root Cause		FAULT CATEGORY																							
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Work Order ID 152473***152473***

Page 2

Item ID: DSI 9464-011

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Skidtube Tuning

Start Date: 10/18/2016 Start Qty: 2.00

2

Cust Item ID:

Required Date: 10/24/2016 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

120

QC4- 100% Inspect kits for completeness

0.00

120

QC

Memo

0.01

Quality Control

2 DAS
28
9-89

DEC 13 2016

130

0.00

130

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP DSI 9464-011
Location : FG1222 DAS
28
9-89DAS
27
9-89

DEC 13 2016

140

QC21- Final Inspection - Work Order Release

0.00

140

QC

Memo

0.03

Quality Control

DAS
21
9-89

DEC 14 2016

DAS
21
9-89

DEC 14 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

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Picklist Print

Monday, November 28, 2016 7:24:02 AM

Page 1

Work Order ID: 152473

152473

Parent Item: DSI 9464-011

DSI 9464-011

Parent Item Name: Skidtube Tuning

Start Date: 10/18/2016

Required Date: 10/24/2016

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP RevA: New issue DD verified by:EC
per ECN10-553 DD 10.04.19 verified byEC

IPP Rev:B as

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D3955-041

Manufactured

No

110

Each

7.0000

2

4

DAS
6
9-89

DEC 09 2016
DAS
27
9-89

D3955-041

Doubler Assembly

Location

Loc Qty

Loc Code

ST064

7

146742

1

146917

6

D3955-3

Manufactured

No

110

Each

6.0000

2

4

DAS
6
9-89

DEC 09 2016
DAS
27
9-89

D3955-3

Cover Plate

Location

Loc Qty

Loc Code

ST063

6

146831

2

152431

4

D3955-5

Manufactured

No

110

Each

10.0000

2

4

DAS
6
9-89

DEC 09 2016
DAS
27
9-89

D3955-5

Plate

Location

Loc Qty

Loc Code

ST063

10

146298

10

DAS
28
9-89

4

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
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Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

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Page 2

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152473

Parent Item: DSI 9464-011

DSI 9464-011

Parent Item Name: Skidtube Tuning

Start Date: 10/18/2016

Required Date: 10/24/2016

Start Qty: 2.00

Required Qty: 2.00

D3955-7

Manufactured No

110

Each

17.0000

6

12

D3955-7

Plate

**

DAS
6
9-89

DEC 09 2016

DAS
27
9-89

Location

Loc Qty

Loc Code

ST064

17

144062

1

145212

2

146528

8

152438

6

D3955-21

Manufactured No

110

Each

4.0000

2

4

D3955-21

Gasket

**

DAS
6
9-89

DEC 09 2016

DAS
27
9-89

Location

Loc Qty

Loc Code

ST064

4

146962

4

D3955-23

Manufactured No

110

Each

6.0000

2

4

D3955-23

Template

**

DAS
6
9-89

DEC 09 2016

DAS
27
9-89

Location

Loc Qty

Loc Code

ST064

6

146924

2

152466

4

CR3212-4-04

Purchased No

110

Each

305.0000

38

76

CR3212-4-04

Cherry Rivet

**

DAS
6
9-89

DEC 09 2016

DAS
27
9-89

Location

Loc Qty

Loc Code

LG001

230

m126534

4

m135056

226

ST320

75

m134943

75

Monday, November 28, 2016 7:24:02 AM

Shop Packet Print

Page 2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

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Design ☐	☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
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Picklist Print

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Page 3

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152473

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DSI 9464-011

Parent Item Name: Skidtube Tuning

Start Date: 10/18/2016

Required Date: 10/24/2016

Start Qty: 2.00

Required Qty: 2.00

AN3-5A

Purchased

No

110

Each

531.0000

4

8

AN3-5A

Bolt

**

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

FP001

155

m134502

155

over003

300

m136182

300

ST350

76

m135058

76

AN3-6A

Purchased

No

110

Each

95.0000

4

8

AN3-6A

Bolt

**

DAS
6
9-89

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST349

95

M134955

95

AN3-7A

Purchased

No

110

Each

192.0000

4

8

AN3-7A

Bolt

**

DAS
6
9-89

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST349

192

m135058

192

DQA: _____ Date: _____



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Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	
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Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	
Past Expiry Date	☐	Manufacturing Process	☐								
Misidentified	☐	Past Due	☐								
				OTHER :							

Picklist Print

Monday, November 28, 2016 7:24:02 AM

Page 4

Work Order ID: 152473

152473

Parent Item: DSI 9464-011

DSI 9464-011

Parent Item Name: Skidtube Tuning

Start Date: 10/18/2016

Required Date: 10/24/2016

Start Qty: 2.00

Required Qty: 2.00

AN3-10A

Purchased

No

110

Each

265.0000

4

8

AN3-10A

Bolt

**

DAS 6 27
9-89 9-89

DAS 28
9-89

Location

Loc Qty

Loc Code

over003

100

m136192

100

ST349

165

m134249

56

m135530

9

m135966

100

8

NAS1149D0332J

Purchased

No

110

Each

1,764.000

6

12

NAS1149D0332J

Washer

**

DAS 6 27
9-89 9-89

DAS 28
9-89

Location

Loc Qty

Loc Code

FP001

118

m134848

118

GA

162

m134848

162

ST260a

1200

m136015

1200

ST264

284

m135672

284

12

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																							
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Date : 3-8		Step #:		QTY Effective :			MRB (QSI042) Approval																																																								
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																							
Root Cause		FAULT CATEGORY																																																													
Environment ☐	Design ☐	Doc/Data ☐	Equip/Tooling ☐	Handling/Pre ☐	Material ☐	Internal Transport ☐	Tribal Knowledge ☐	LOA ☐	Substation ☐	Past Expiry Date ☐	Misidentified ☐	No Re-verification ☐	Operator ☐	Offset/Setup ☐	Supplier ☐	Training ☐	Use for Testing ☐	Poor Information ☐	Rushing ☐	Product Improvement ☐	Process Improvement ☐	Manufacturing Process ☐	Past Due ☐	Pressure/Forced ☐	Bending ☐	Centre Not Concentric ☐	Cracks ☐	Crimp/Kink/Ripple/Wave ☐	Cuffs ☐	Crushing ☐	Heat Treat ☐	Wave/Twist in Tube ☐	Marks/Chatter ☐	Temperature/Cure ☐	Set-up ☐	BOM/Route ☐	Broken/Damage/Defect ☐	Inspection Incomplete/Unqualified ☐	Contamination ☐	Countersink ☐	Cut Too Short ☐	Instructions Incomplete/Unclear ☐	Drill Holes ☐	Power Loss/Surge ☐	Folio/Program ☐	Grain ☐	Weld ☐	Wrong Stock Pulled ☐	Out of Sequence ☐	Off-set ☐	Mislabeled ☐	Fit/Function ☐	Misaligned/off center ☐	Positioned Wrong ☐	Outside Dimensions ☐	Over/Under tolerance ☐	Part Incorrect ☐	Part Lost/Missing ☐	Part Moved ☐	Drawing ☐	Finish ☐	Misread ☐	Turning Sequence ☐
																								OTHER :																																							

Picklist Print

Monday, November 28, 2016 7:24:02 AM

Page 5

Work Order ID: 152473

152473

Parent Item: DSI 9464-011

DSI 9464-011

Parent Item Name: Skidtube Tuning

Start Date: 10/18/2016

Required Date: 10/24/2016

Start Qty: 2.00

Required Qty: 2.00

MS21042L3

Purchased

No

110

Each

2,232.000

2

4

MS21042L3

Nut

**DAS
6
9-89**

**DAS
27
9-89**

**DAS
28
9-89**

Location

Loc Qty

Loc Code

CCK007

600

M136192

600

FP001

100

m135945

100

GA

196

m134360

108

m135135

88

OVER007

600

M136044

600

ST303

736

m135767

236

m135945

500

4

DQA: _____ Date: _____



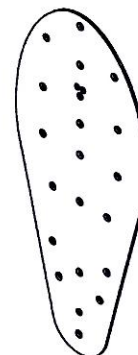
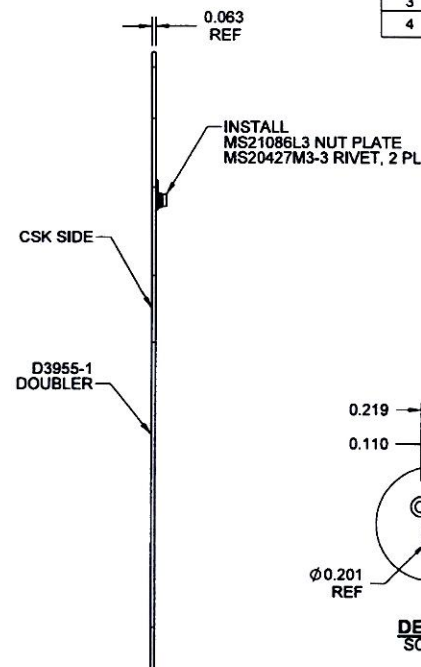
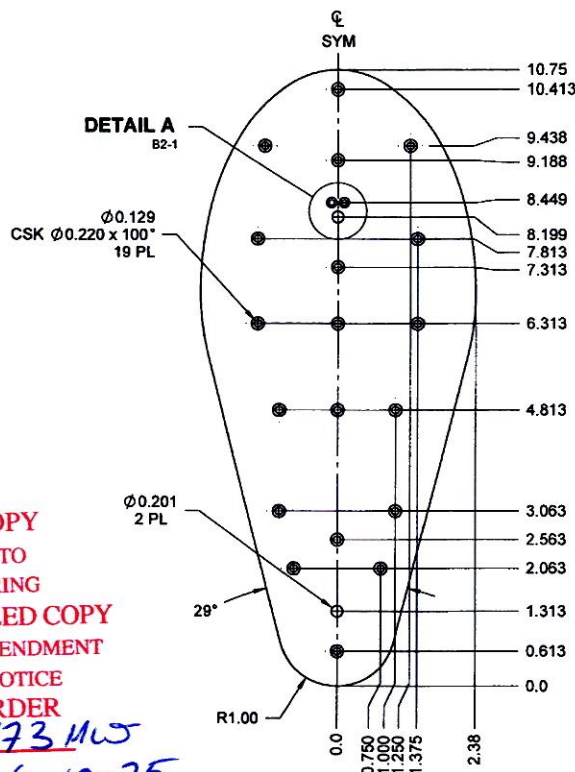
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																																													
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Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____																																																																													
Misidentified ☐	Past Due ☐																																																																														

ITEM	QTY -041	P/N	DESCRIPTION
1	X	D3955-041	DOUBLER ASSY
2	1	D3955-1	DOUBLER
3	1	MS21086L3	NUT PLATE
4	2	MS20427M3-3	RIVET



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

NO. 152473 MWS
16-10-25

D3955-1 DOUBLER

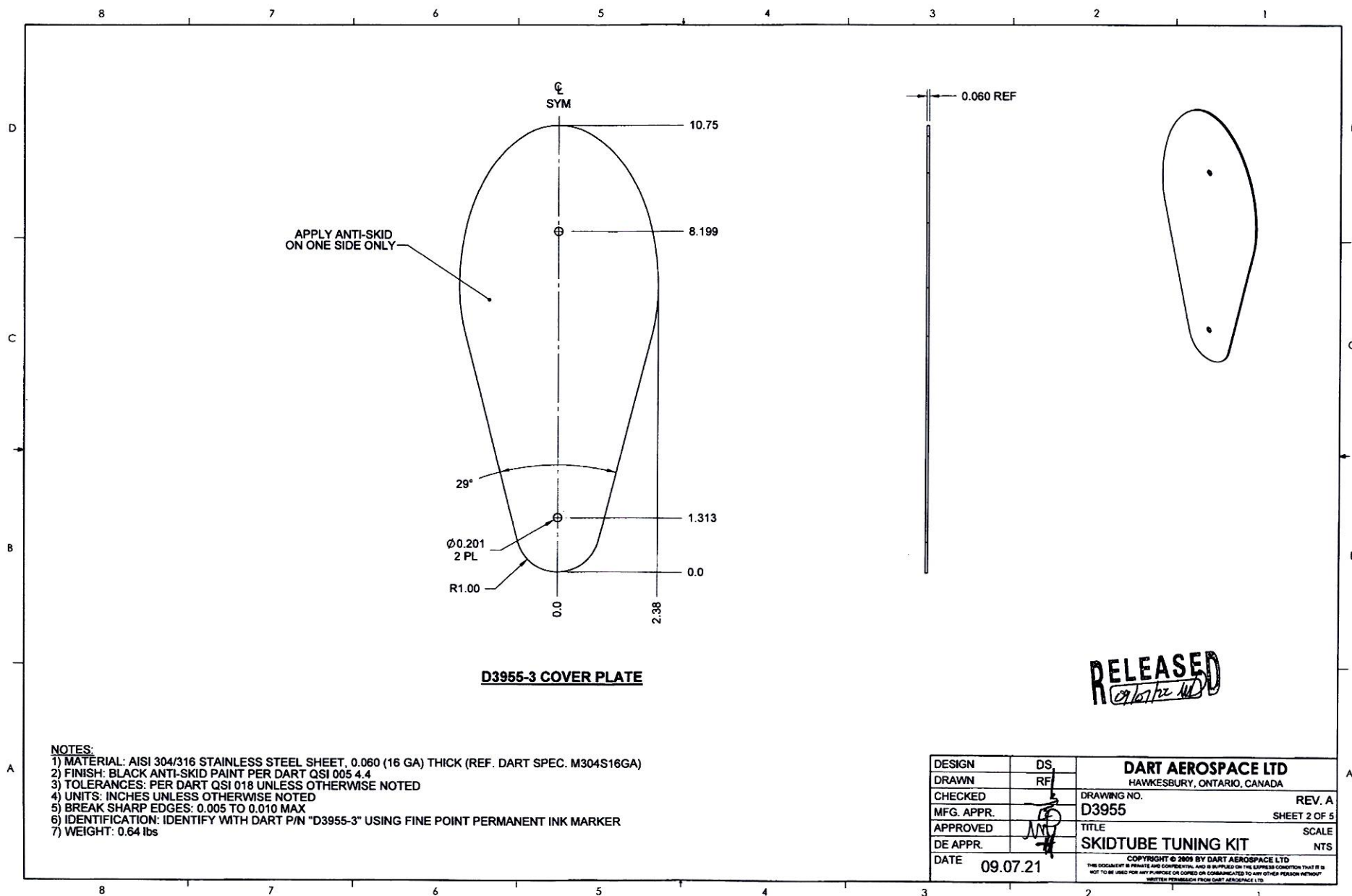
D3955-1 NOTES:

- 1) MATERIAL: 6061-T6 ALUMINUM, 0.063 THICK SHEET PER AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 (REF: DART SPEC. M6061T6S.063)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART ASSEMBLY P/N "D3955-041" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.25 lbs

D3955-041 DOUBLER ASSEMBLY

RELEASED
07/12/22 MWS

A NEW ISSUE		RF	09.07.21
REV.	DESCRIPTION		BY DATE
DESIGN	DS	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D3955	SHEET 1 OF 5
APPROVED		TITLE	SCALE
DE APPR.		SKIDTUBE TUNING KIT	NTS
DATE	09.07.21	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



D3955-3 COVER PLATE

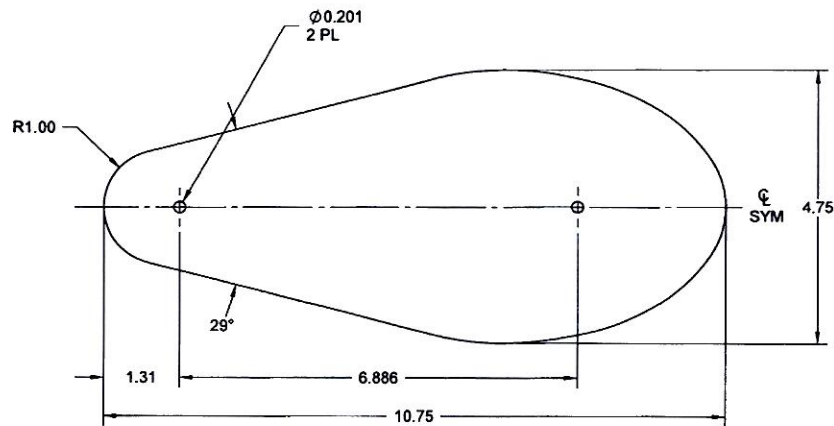
RELEASED
09/07/21

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, 0.060 (16 GA) THICK (REF. DART SPEC. M304S16GA)
- 2) FINISH: BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3955-3" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.64 lbs

DESIGN	DS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED		DRAWING NO. D3955	REV. A
MFG. APPR.			SHEET 2 OF 5
APPROVED		TITLE SKIDTUBE TUNING KIT	SCALE NTS
DE APPR.		DATE 09.07.21	

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D3955-X PLATE

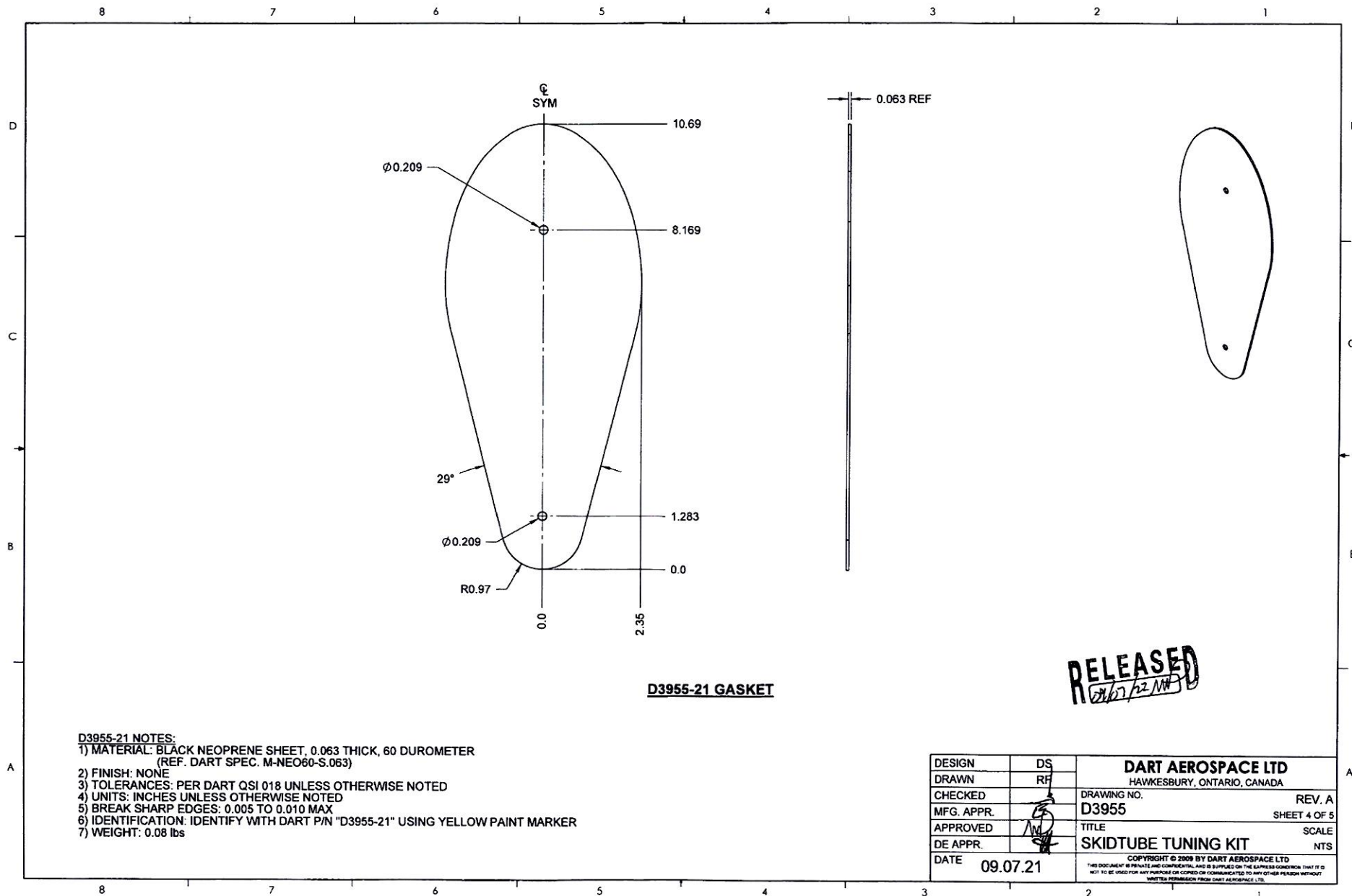
General Table			
P/N	T (in)	T (GA)	WEIGHT (lbs)
D3955-5	0.060	16	0.64
D3955-7	0.120	11	1.28

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, T (GA) THICK (REF. DART SPEC. M304S'T'GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3955-X" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: SEE TABLE

RELEASED
G/kz MD

DESIGN	DS	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D3955	SHEET 3 OF 5
APPROVED		TITLE	SCALE
DE APPR.		SKIDTUBE TUNING KIT	NTS
DATE	09.07.21	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



D3955-21 GASKET

RELEASED
7/6/72 MW

D3955-21 NOTES:

- 1) MATERIAL: BLACK NEOPRENE SHEET, 0.063 THICK, 60 DUROMETER
(REF. DART SPEC. M-NEO60-S.063)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3955-21" USING YELLOW PAINT MARKER
- 7) WEIGHT: 0.08 lbs

DESIGN	DS	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D3955	SHEET 4 OF 5
APPROVED		TITLE	SCALE
DE APPR.		SKIDTUBE TUNING KIT	NTS
DATE	09.07.21	COPYRIGHT © 2009 BY DART AEROSPACE LTD	
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DART SERVICE INSTRUCTION

TO AMEND:

INSTALLATION INSTRUCTIONS D205-634 REV. F OR EARLIER,
INSTALLATION INSTRUCTIONS D204-635 REV. F OR EARLIER,
INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D205-634 REV. 3 OR EARLIER,
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D204-635 REV. 3 OR EARLIER

REF CANADIAN STC: SH96-88
REF FAA STC: SR00563NY
REF EASA STC: EASA.IM.R.S.01303

Purpose:

The Purpose of the DSI 9464-011 Kit is to allow operators to tune landing gear utilizing D205-634-041 / D204-635-041 skidtube in order to eliminate vibration. This kit consists of various weights that can be attached to the fwd cap of the Dart skidtube.

Procedure:

Note: Installer must be careful not to damage underlying skidtube during drilling operations.

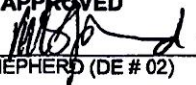
- 1) Locate D3955-23 template on the fwd cap of the skidtube. Transfer drill 19 x Ø0.098" holes from the D3955-23 template to the skidtube cap using a #30 drill.
- 2) Transfer drill 1 x Ø0.625" (15.8 mm) from the D3955-23 template to the skidtube as shown in Figure 1.
- 3) Transfer drill 1 x Ø0.201" (#7 drill) from the D3955-23 template to the skidtube as shown in Figure 1.
- 4) Deburr the drilled holes in fwd cap. Ensure the top surface of the cap is clear of debris.
- 5) Apply a layer of Sikaflex-241/-291 or Proseal 890 or MIL-S-8802 Class B2 sealant between the D3955-041 Doubler and the existing skidtube cap. Install D3955-041 Doubler Assy. using 19 x CR3212-4-04 rivets as shown in Figure 1. The nutplate in the D3955-041 Doubler Assy should pass thru the Ø0.625 hole in the cap.
- 6) Install tuning plates as shown in Figure 2. Torque AN3 bolts 15-25 in-lb (1.7-2.8 N-m). Test the landing gear for vibration.
- 7) If vibration persists, repeat step 6 until vibration is eliminated.
- 8) Update Weight & Balance as outlined below.

Weight And Balance:

The weight and balance increase associated with the installation of the DSI 9464-011 kit will depend on the number of plates that are installed to tune the gear. The weight of individual plates are given in the Parts List Table. The longitudinal arm for the installation of the DSI 9464-011 kit is 40.0 in (1.02 m) on 205/210/212/214/412 models and 42.0 in (1.07 m) on 204 models.

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 10.04.14
CERT. NO.: SH96-88
ISSUE NO.: 3

B	ADD REF TO D204-635	CP	10.04.14
A	NEW ISSUE	RF	09.07.21
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		DSI 9464	SHEET 1 OF 3
APPROVED		TITLE	SCALE
DE APPR.		SKIDTUBE TUNING KIT	NTS
DATE	10.04.14	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

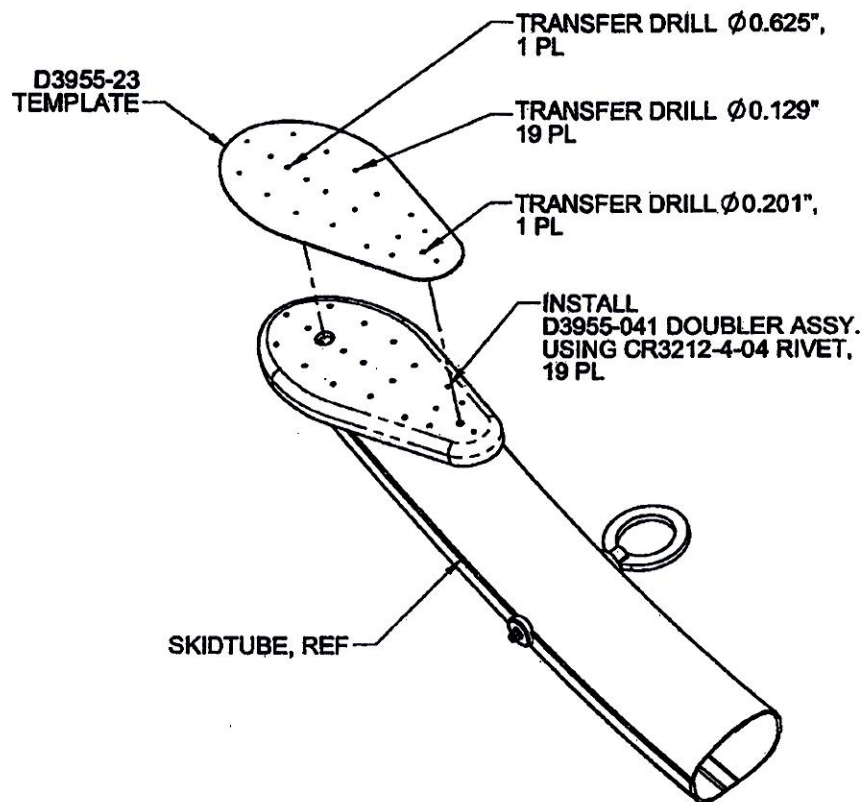


Figure 1

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY:

D. SHEPHERD (DE # 02)

DATE:

10.04.14

CERT. NO.:

SH96-88

ISSUE NO.:

3

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	<i>Q</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>N/A</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>N/A</i>	DSI 9464	SHEET 2 OF 3
APPROVED	<i>MP</i>	TITLE	SCALE
DE APPR.	<i>H</i>	SKIDTUBE TUNING KIT	NTS
DATE	10.04.14	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

Part List

Qty -011	Part Number	Description	Weight
X	DSI 9464-011	SKIDTUBE TUNING KIT	N/A
2	D3955-041	DOUBLER ASSEMBLY	0.25 lb/ 0.11 kg
2	D3955-3	COVER PLATE	0.64 lb/ 0.29 kg
2	D3955-5	0.063" THICK PLATE	0.64 lb/ 0.29 kg
6	D3955-7	0.125" THICK PLATE	1.28 lb/ 0.58 kg
2	D3955-21	GASKET	0.08 lb/ 0.04 kg
2	D3955-23	TEMPLATE	N/A
38	CR3212-4-04	RIVET	N/A
4	AN3-5A	BOLT	N/A
4	AN3-6A	BOLT	N/A
4	AN3-7A	BOLT	N/A
4	AN3-10A	BOLT	N/A
6	NAS1149D0332J	WASHER	N/A
2	MS21042L3	NUT (OR MS21042-3)	N/A

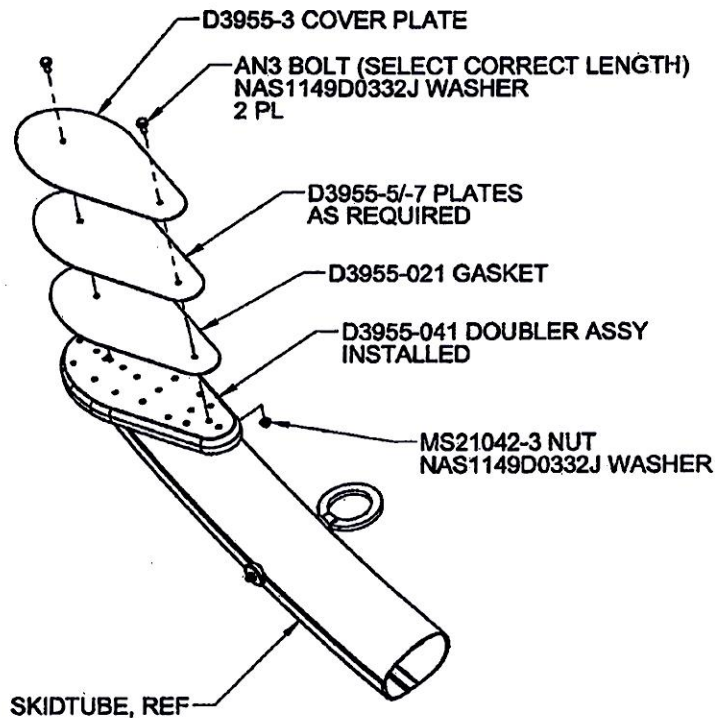


Figure 2

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

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APPROVED		TITLE	SCALE
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152473

Page 1

Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Stop *NS2*

?

Cust Item ID:

~

Customer:

Reference:

GAS

Process Plan:

21

9.80

Date: NOV 28 2016

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

[illegible]

REFERENCE ONLY

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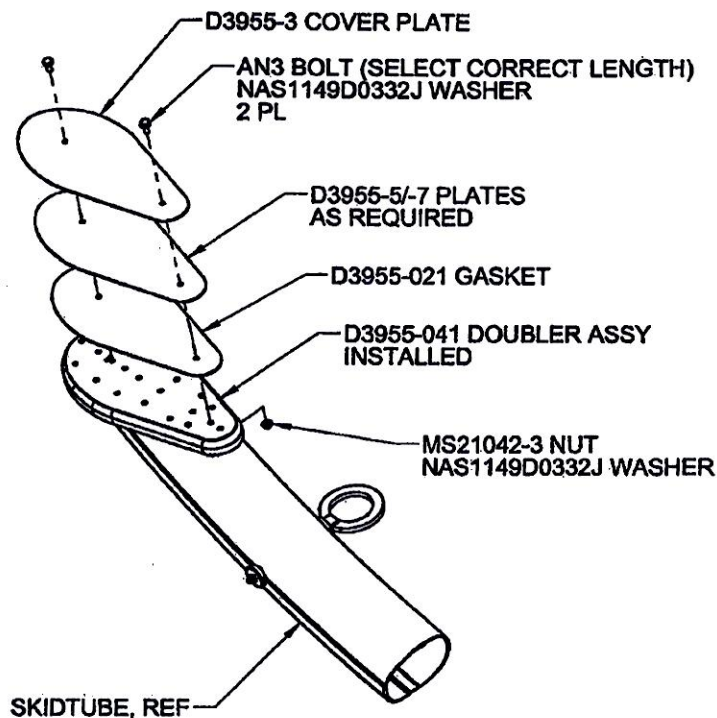


Figure 2

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